

Draft
Stationary Source Subcommittee
Interim Report on Operating Parameters for Various Categories
April 21, 1999

The following information was collected during a telephone survey with equipment operators. This information should be considered a “work-in-progress” as information is still being collected and reviewed.

Hospitals, Prisons, and Commercial facilities

Correctional Institution

- Each facility is equipped with at least one, and possibly two, 2 MW diesel-fired backup generators. Institutions with hospital facilities may have an additional backup generator.
- Operation:
 - Up to one hour per week for testing; and
 - As needed for power outage

Military

Air Base

- 200 - 300 pieces of flight line / tactical support equipment (TSE) per facility
- Types of diesel-fired engines:
 - Flight line TSE (IC engines - 100 hp +/-; turbines - 300 hp +/-)
 - Backup generator sets (50-100 kw)
 - Maintenance/repair equipment (portable, 100 hp +/-)
- Operation: TSE: 2-3 hours/day, 5 days/week; generators: 24 hours/year; maintenance/repair equipment: as needed
 - Multiple TSE can be operated at one time
- Nearest resident at least 1/2 mile from TSE
- One facility with 13 - 3.3 MW turbines operated on JP8 (limited by permit to 100 hours/year)

Marine Corp Facilities

- 4 Source Categories
 - Stationary sources w/ permit (not standby / backup)
 - Stationary sources w/ permit (emergency backup equipment)
 - Portable maintenance equipment registered w/ PERP
 - Registered TSE
 - TSE in storage

Oil Production

Well Servicing

- Several engines can be used for a project. Typically, generator sets, pumps, and hydraulic tongs and swivels would be powered by diesel-fired engines. Engine horsepower varies from 50 up to 500 horsepower.
- Operation: a few hours up to several days, depending upon the type of work, and location of well.
- Most locations are remote from receptors. However, some wells are adjacent to residences.

Power Plants

Electrical Plant

- Typically at remote locations, such as islands or for mines. Also as backup power when power outages would be detrimental to operation of facility
- Power for Island
 - Six large engines, 1 MW to 3 MW each.
 - Operation: several engines operate continuously and the remaining are kept in reserve as peaking units.
 - NOx Tech air pollution control equipment on two of the engines (also reduces particulate emissions).
- Backup Power
 - Fifteen Engines, 500 to 750 kw each.
 - Operation: 900 hours/year, with three engines operating at one time.

Utility Operated Equipment

- Types of diesel-fired engines (all portable)
 - Maintenance and repair equipment such as compressors (50-100 hp).
 - Backup generator sets for use by customers as emergency power (100- 600 hp).
 - Smaller generator sets (< 50 hp).
- Operation
 - Maintenance equipment operated 2-4 hours/day, 20 hours/week.
 - Generator sets operate 20 hours/year average.
 - Equipment typically operated within commercial areas, not residential areas.

Water Treatment/Solid Waste Facilities

Water Supply

- Types of diesel-fired engines
 - Stationary backup generator (300 - 1500 hp)
 - Stationary water pump (300 - 800 hp)
 - Portable generator sets, compressors, welders (50-200 hp)
- Operation
 - Stationary backup engine: 15 hours/year plus outages
 - Water pump: 1000 hours/year,
 - Portable engines: varies, depending upon need.
- Stationary engines can be located near residents and portable engines can be operated near residents.

Solid Waste

- Types of diesel-fired engines
 - Compressors (80 hp)
 - Generator sets (375-475 hp)
 - Tub grinders (500-900 hp)
 - Chippers (80 hp)
 - Wind machines (150 hp)
 - Emergency fire pump (235 bhp)
- Operation:
 - Compressors: 1,100+ hours/year
 - Generator sets: 30 hours/year
 - Tub Grinders/Chippers: 1,000 hours/year
 - Wind machines 1,000 hours/year
 - Fire pump: 40+/- hours/year
- Nearest resident is about 1/4 mile from fence line